

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A sliding material, which comprises
not less than 50 vol.% of polytetrafluoroethylene resin,
3-40 vol.% of at least one member selected from the group consisting of bismuth particles and bismuth alloy particles and
1-40 vol.% of injection moldable fluororesin,
sum total being 100 vol.%,
said sliding material being substantially free of lead.
2. (Currently Amended) A sliding material, which comprises
not less than 50 vol.% of polytetrafluoroethylene resin,
3-40 vol.% of at least one member selected from the group consisting of bismuth particles and bismuth alloy particles, and
0.1-20 vol.% of hard particles,
sum total being 100 vol.%,
said sliding material being substantially free of lead.
3. (Currently Amended) A sliding material, which comprises

not less than 50 vol.% of polytetrafluoroethylene resin,
_____ 3-40 vol.% of at least one member selected from the group consisting of bismuth particles and bismuth alloy particles, and
_____ 0.1-20 vol.% of a solid lubricant, sum total being 100 vol.%,
_____ said sliding material being substantially free of lead.

4. (Currently Amended) A sliding material, which comprises
not less than 50 vol.% of polytetrafluoroethylene resin,
3-40 vol.% of at least one member selected from the group consisting of bismuth particles and bismuth alloy particles,
1-40 vol.% of injection moldable fluororesin, and
0.1-20 vol.% of hard particles,
sum total being 100 vol.%,
_____ said sliding material being substantially free of lead.

5. (Currently Amended) A sliding material, which comprises
not less than 50 vol.% of polytetrafluoroethylene resin,
3-40 vol.% of at least one member selected from the group consisting of bismuth particles and bismuth alloy particles,
1-40 vol.% of injection moldable fluororesin, and
0.1-20 vol.% of a solid lubricant,
sum total being 100 vol.%,

said sliding material being substantially free of lead.

6. (Currently Amended) A sliding material, which comprises

not less than 50 vol.% of polytetrafluoroethylene resin,

3-40 vol.% of at least one member selected from the group consisting of bismuth particles and bismuth alloy particles,

1-40 vol.% of injection moldable fluororesin,

0.1-20 vol.% of hard particles and

0.1-20 vol.% of a solid lubricant,

sum total being 100 vol.%,

said sliding material being substantially free of lead.

7. (New) The sliding material of claim 1 wherein said injection moldable fluororesin is present in an amount of 2-20 vol.% and is selected from the group consisting of tetrafluoroethylene-perfluoroalkyl vinyl ether copolymer, tetrafluoroethylene-hexafluoropropylene copolymer and polyvinylidene fluoride.

8. (New) The sliding material of claim 2 wherein said hard particles are present in an amount of 0.5-10 vol.%, and are selected from the group consisting of at least 1 of W, Ti, Cr, Al₂O₃, Fe₃O₄, CrO₂, SiC and TiO₂, and said hard particles have an average particle size not more than 10 μ m.

9. (New) The sliding material of claim 8 wherein the average particle size of said hard particles is not more than 1 μm .

10. (New) The sliding material of claim 3 wherein said solid lubricant is present in an amount of 0.5-10 vol.%, and is selected from the group consisting of at least one of graphite, MoS_2 , WS_2 and BN.

11. (New) The sliding material of claim 4 wherein said injection moldable fluororesin is present in an amount of 2-20 vol.% and is selected from the group consisting of tetrafluoroethylene-perfluoroalkyl vinyl ether copolymer, tetrafluoroethylene-hexafluoropropylene copolymer and polyvinylidene fluoride,

said hard particles are present in an amount of 0.5-10 vol.%, and are selected from the group consisting of at least 1 of W, Ti, Cr, Al_2O_3 , Fe_3O_4 , CrO_2 , SiC and TiO_2 , and said hard particles have an average particle size not more than 10 μm .

12. (New) The sliding material of claim 5 wherein said injection moldable fluororesin is present in an amount of 2-20 vol.% and is selected from the group consisting of tetrafluoroethylene-perfluoroalkyl vinyl ether copolymer,

tetrafluoroethylene-hexafluoropropylene copolymer and
polyvinylidene fluoride, and

said solid lubricant is present in an amount of 0.5-
10 vol.%, and is selected from the group consisting of at
least one of graphite, MoS₂, WS₂ and BN.

13. (New) The sliding material of claim 6 wherein
said injection moldable fluororesin is present in an amount of
2-20 vol.% and is selected from the group consisting of
tetrafluoroethylene-perfluoroalkyl vinyl ether copolymer,
tetrafluoroethylene-hexafluoropropylene copolymer and
polyvinylidene fluoride,

said hard particles are present in an amount of 0.5-
10 vol.%, and are selected from the group consisting of at
least 1 of W, Ti, Cr, Al₂O₃, Fe₃O₄, CrO₂, SiC and TiO₂, and said
hard particles have an average particle size not more than 10
μm, and

said solid lubricant is present in an amount of 0.5-
10 vol.%, and is selected from the group consisting of at
least one of graphite, MoS₂, WS₂ and BN.

14. (New) The sliding material of claim 7 wherein
said polytetrafluoroethylene resin is present in an amount of
at least 70 vol.%, and

said bismuth particles or bismuth alloy particles are present in an amount of 10-30 vol.% and are of particle size of about 1 to about 50 μm .

15. (New) The sliding material of claim 8 wherein said polytetrafluoroethylene resin is present in an amount of at least 70 vol.%, and

said bismuth particles or bismuth alloy particles are present in an amount of 10-30 vol.% and are of particle size of about 1 to about 50 μm .

16. (New) The sliding material of claim 9 wherein said polytetrafluoroethylene resin is present in an amount of at least 70 vol.%, and

said bismuth particles or bismuth alloy particles are present in an amount of 10-30 vol.% and are of particle size of about 1 to about 50 μm .

17. (New) The sliding material of claim 10 wherein said polytetrafluoroethylene resin is present in an amount of at least 70 vol.%, and

said bismuth particles or bismuth alloy particles are present in an amount of 10-30 vol.% and are of particle size of about 1 to about 50 μm .

18. (New) The sliding material of claim 11 wherein said polytetrafluoroethylene resin is present in an amount of at least 70 vol.%, and

said bismuth particles or bismuth alloy particles are present in an amount of 10-30 vol.% and are of particle size of about 1 to about 50 μm .

19. (New) The sliding material of claim 12 wherein said polytetrafluoroethylene resin is present in an amount of at least 70 vol.%, and

said bismuth particles or bismuth alloy particles are present in an amount of 10-30 vol.% and are of particle size of about 1 to about 50 μm .

20. (New) The sliding material of claim 13 wherein said polytetrafluoroethylene resin is present in an amount of at least 70 vol.%, and

said bismuth particles or bismuth alloy particles are present in an amount of 10-30 vol.% and are of particle size of about 1 to about 50 μm .